Address by Ms Véronique Dauge, Head of the Culture Unit of the UNESCO Regional Bureau for Science and Culture in Europe, Venice, on the occasions of the 3D exhibit "Revisiting the Roman Forum: from Pen to Pixel: Methods of Documentation in the 20th and 21st Centuries" and the symposium "The Digital Future of World Heritage", University of Notre Dame, Rome, 2, April 2014

Excellences,

Ladies and Gentlemen,

On behalf of the Director-General of UNESCO, I would like to thank the University of Notre Dame, in particular Professor Krupali Krusche, for the kind invitation to address you here this evening and to participate in the symposium on "The Digital Future of World Heritage".

This symposium attests to the growing awareness that the active use of digital documentation techniques is vital for the safeguarding of our cultural and natural heritage and I congratulate the DHARMA Lab at the School of Architecture and The Center for Research Computing of the University of Notre Dame in Rome for organizing this event.

Through the case study of the Roman Forum, located within the transboundary World Heritage property "Historic Centre of Rome, the Properties of the Holy See in that City Enjoying Extraterritorial Rights and San Paolo Fuori le Mura" (Italy / Holy See), the remarkable 3D Exhibit "Revisiting the Roman Forum: from Pen to Pixel: Methods of Documentation in the 20th and 21st Centuries" shows us that the art of architectural documentation is not a recent phenomenon but presents a rich history, worthy of being recorded itself.

On the occasion of the first International Congress on Digital Heritage, organized under the patronage of UNESCO in Marseille, France, between 28 October and 1 November last year, UNESCO stressed the importance that it attributes to conserving documentary heritage. UNESCO's Memory of the World programme,

founded in 1992, has been actively involved in the preservation of the World's heritage, representing UNESCO's commitment to both tangible and intangible heritage.

Preserving digital information for current and future use is a major challenge, and UNESCO has undertaken several initiatives that put this issue on the international agenda.

During the same congress, Mr Francesco Bandarin, the Assistant Director-General for Culture, expressed UNESCO's high interest to continue and expand the cooperation with scientists and companies involved in the field of digital heritage and highlighted the importance of research, experimentation and innovation for heritage management.

In contrast to traditional documentation techniques such as drawings, photography or photogrammetry, digital documentation techniques such as laser-scanning make it possible today to record a monument or site in all of its dimensions and to monitor them over time.

UNESCO shares with the University of Notre Dame the belief that innovative technologies should not only be used for the purpose of scientific research, but also serve to interpret the research and to make the Outstanding Universal Value of World Heritage sites understandable for the local, national and international communities. These communities could and should also be more involved through the use of mobile applications designed to contribute in the ongoing inventorying and monitoring of monuments and sites.

In contrast to academic texts, 3D technologies present an opportunity to make heritage more inclusive since they overcome language barriers by communicating through one universal language, understandable by almost everyone: the visual language of images.

Within the field of conservation ethics, these images also present new opportunities to transcend the old dichotomy, personified by Ruskin's philosophy that "it is *impossible* […] to restore anything that has ever been great or beautiful in architecture" versus Viollet-le-Duc's pragmatic definition of restoration as a means "to re-establish [a building] to a finished state, which may in fact never have actually

existed at any given time." 3D models have the capacity to include the advantages of both philosophies. They can reduce the necessity to intervene on the historic fabric while at the same time allow the public to understand the different historical layers of a site through the creation of different virtual reconstructions.

In recent years, UNESCO has continuously underlined the importance of using non-destructive methods to document monuments and evaluate their state of conservation.

The creation of digital records and reconstructions is also a way to mitigate the possible loss of historic fabric due to natural hazards and human destruction. This insight has been the trigger for initiatives such as the 3D Exhibit of the Roman Forum or the CyArk 500 Challenge, committed to the 3D scanning and digital preservation of 500 World Heritage and other significant sites within a period of 5 years.

The long-term objectives we want to achieve through technology should remain the focus, rather than technology as a means in itself. The truth is that the majority of the World Heritage sites around the globe cannot afford to continuously invest in the latest equipment. The challenge for future experts will therefore consist in creatively choosing and combining the adequate traditional and new documentation techniques in a cost-efficient and sustainable way, with particular attention to the data-management and follow-up afterwards. Keeping in mind the objectives of economic sustainability and inclusive access, the introduction of crowdsourcing mechanisms and the use of existing and newly created digital open-source data should be stimulated as much as possible.

In the future, the digital shift in heritage management presents an opportunity for new synergies between heritage and the broader creative economy, as was recently highlighted by the European Expert Network on Culture (EENC). The digital data of World Heritage sites can contribute to UNESCO's objective of sustainable development by making them widely accessible for other purposes as well, such as education or tourism.

The World Heritage Centre has been promoting access to virtual World Heritage through the creation of partnerships with private companies.

Since 1996, a partnership between the World Heritage Centre and the Tokyo Broadcasting System (TBS), one of the leading private broadcasters in Japan, has been in effect for the production of documentaries on World Heritage. TBS started its documentary series "The World Heritage" at a time before the World Heritage Convention was well known among the Japanese public.

The weekly 30-minute programme, with its striking images and compelling narration generated interest among many Japanese people. The series contributed to increase World Heritage-related tourism, publications and television programmes, leading to a broader understanding and conveying the true value of the Convention to a wide public.

Through a strategic partnership with the World Heritage Centre, the Panasonic Corporation created the 3D Dive Experience at the UNESCO headquarters in Paris for the occasion of the 36th General Conference in October 2011. Using Panasonic's newly developed multi-screen panoramic 3D display system, special contents were produced, allowing visitors to be immersed in the life-like 3D grandeur of Stonehenge, Yellowstone and other outstanding sites. Recently, more sites, such as the Taj Mahal or the ancient city of Kyoto have been added. In this way people who do not have the opportunity to witness these World Heritage sites with their own eyes, can still feel connected to them. These technologies have also an important role to play to facilitate access to cultural resources for people with disabilities.

UNESCO and its World Heritage Centre are particularly interested in the way governments, foundations, NGOs and companies will continue to use ground-breaking technologies to contribute to the overall UNESCO objectives of "peace through culture" and sustainable development.

With this in mind, I wish you a fruitful symposium and look forward to sharing its enriching insights with the broader heritage community world-wide.

Thank you.